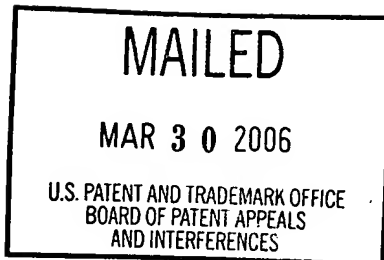


The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

**Ex parte** EIJI HAMAMOTO, YOUICHIROU SUGINO,  
SEIICHI KUSUMOTO, and TAKASHI SHOUDA



Appeal No. 2006-0124  
Application No. 10/071,301

HEARD: January 11, 2006

Before JERRY SMITH, GROSS, and LEVY, **Administrative Patent Judges**.  
GROSS, **Administrative Patent Judge**.

**DECISION ON APPEAL**

This is a decision on appeal from the examiner's final rejection of claims 1 through 24, which are all of the claims pending in this application.

Appellants' invention relates to a polarizing plate having a protective film bonded to a polarizing film using an adhesive formed of a water-soluble crosslinking agent capable of crosslinking a vinyl alcohol-based polymer. Claim 1 is illustrative of the claimed invention, and it reads as follows:

1. A polarizing plate comprising a polyvinyl alcohol-based polarizing film containing a dichroic substance and a transparent

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protective film bonded to at least one surface of the polyvinyl alcohol-based polarizing film through an adhesive layer, wherein

the adhesive layer comprises (i) a water-soluble crosslinking agent capable of crosslinking a vinyl alcohol-based polymer, and (ii) a catalyst.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Delangre et al. (Delangre)	3,015,989	Jan. 09, 1962
Buzzell	3,531,351	Sep. 29, 1970
Shulman et al. (Shulman)	4,545,648	Oct. 08, 1985

Claims 1 through 5, 9 through 12, and 19 through 24 stand rejected under 35 U.S.C. § 103 as being unpatentable over Buzzell.

Claims 6 through 8 stand rejected under 35 U.S.C. § 103 as being unpatentable over Buzzell in view of Shulman.

Claims 13 through 18 stand rejected under 35 U.S.C. § 103 as being unpatentable over Buzzell in view of Delangre.

Reference is made to the Examiner's Answer (mailed May 24, 2005) for the examiner's complete reasoning in support of the rejections, and to appellants' Brief (filed March 18, 2005) and Reply Brief (filed July 25, 2005) for appellants' arguments thereagainst.

**OPINION**

As a preliminary matter, we note that appellants indicate on pages 3, 6, and 7 of the Brief that they consider claims 1 through 5, 9 through 12, and 19 through 24 to be one group, claims 6 through 8 to be a second group, and claims 13 through 18 to be a third group. We will treat the claims as falling into the three groups set forth by appellants, with claims 1, 6, and 13 as representative.

We have carefully considered the claims, the applied prior art references, and the respective positions articulated by appellants and the examiner. As a consequence of our review, we will reverse the obviousness rejection of claims 1 through 24.

Independent claim 1 (the only independent claim in Group I) recites, in pertinent part, an adhesive layer which comprises "a water-soluble crosslinking agent capable of crosslinking a vinyl alcohol-based polymer." The examiner (Answer, page 4) recognizes that Buzzell's adhesive layer does not contain a crosslinking agent. However, the examiner directs our attention to column 5, lines 25-30, of Buzzell, wherein Buzzell teaches that a crosslinking agent "improve[s] the properties of the [mordanting] polymer, such as to maintain the dimensional stability of the polymer against ambient humidity, and to meet the above-mentioned

characteristics," which include "clear in color, castable, stretchable, possess mordant sites than [sic] can react with a dye, be sufficiently swellable in water to be dyed, that is, have its mordant sites exposed and also exhibit good dichroism after appropriate dyeing" (Buzzell, column 5, lines 13-17). The examiner concludes (Answer, page 4) that it would have been obvious to add a crosslinking agent to the adhesive layer, aided by a catalyst such as hydrochloric acid (HCl) (based on column 6, lines 1-5, of Buzzell), "to maintain the dimensional stability of the entire polarizing plate laminate."

Appellants argue (Brief, page 4) that Buzzell "does not disclose the advantages of a cross-linking agent for any 'polymer.'" Instead, contend appellants, Buzzell only teaches that adding a crosslinking agent to a mordanting polymer film improves the "dimensional stability" and other characteristics of the mordanting polymer film. Further, appellants add (Brief, page 5) that Buzzell fails to suggest that the characteristics that are improved by the crosslinking agent are applicable to the adhesive layer. Thus, appellants assert (Brief, page 5) that the examiner has failed to establish a motivation for using a crosslinking agent in the adhesive of Buzzell other than in hindsight. We agree.

The characteristics of the mordanting polymer that are improved by the addition of a crosslinking agent are not properties sought for an adhesive material. Accordingly, the skilled artisan would not have considered the teachings of Buzzell to add a crosslinking agent to be applicable to Buzzell's adhesive material. Without the requisite teaching or suggestion to use a crosslinking agent in the adhesive layer, the examiner has failed to establish a prima facie case of obviousness. Consequently, we cannot sustain the obviousness rejection of claims 1 through 5, 9 through 12, and 19.

Each of claims 6 and 13 (the only independent claims in Groups II and III) includes the same limitation recited in claim 1 of an adhesive layer comprising "a water-soluble crosslinking agent capable of crosslinking a vinyl alcohol-based polymer." Since neither Shulman nor Delangre remedies the deficiencies of Buzzell, we cannot sustain the obviousness rejection of claims 6 through 8 and 13 through 18.

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## CONCLUSION

The decision of the examiner rejecting claims 1 through 24 under 35 U.S.C. § 103 is reversed.

**REVERSED**


*Jerry Smith*  
JERRY SMITH

JERRY SMITH  
Administrative Patent Judge

Anita Pellman Gross

ANITA PELLMAN GROSS  
Administrative Patent Judge

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 STUART S. LEVY

STUART S. LEVY  
Administrative Patent Judge

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